

SECTION 1413

COMBINATION AIR RELEASE VALVE

1413.0100 GENERAL

1413.0101 Description of Work. The work under this Section shall consist of furnishing all labor, materials, and equipment required for the installation of combination air release valves, all in accordance with the details shown on the plans and requirements of these specifications (see TW Standard Details 330 and 331).

1413.0103 Submittals. In order to be accepted for incorporation into the work, the manufacturer's make and model of air release valve shall appear on the list of Agency-approved products found in Appendix A of these standard specifications.

1413.0104 Delivery, Storage, and Handling. Combination air release valves shall be delivered to the site, stored in a dry place, and repainted after installation in accordance with the plans or special provisions.

1413.0200 PRODUCTS

1413.0201 Materials. Any reference made herein to air release valves shall be synonymous with combination (air release, air/vacuum) unless specifically stated otherwise.

(A) Standards. Air release valves and the materials used in their manufacturer shall comply with the most recent revision of the standards contained in Appendix B and listed in the Approved Materials List (Appendix A).

(B) Pressure Class. Working pressure for air release valves shall be 150 pounds per square inch unless otherwise noted on the plans or in the special specifications.

(C) Metal Component Parts. Air release valves covered by this specification are sized 1/2 inch through 6 inches unless otherwise noted. Component parts of the air release valves shall be in accordance with AWWA C512. All components of air release valves shall be tested and certified by an approved testing laboratory located in the United States. All component and repair parts shall be readily available.

Air release valves 3 inches in diameter and smaller shall be provided with a threaded connection. Valves 4 inches in diameter and larger shall be provided with an ANSI B16.1 Class 125 flanged inlet connection unless otherwise noted on the plans or in the special specifications.

Air release valves shall consist of single or dual housing. The body and cover shall be of gray cast iron in accordance with ASTM A126, Class B, or ductile iron in accordance with ASTM A536, Grade 65-45-12. The valve trim, float, and all working parts shall be constructed of stainless steel, brass, or other corrosion-resistant material.

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(D) Lightweight Component Parts. Air release valves shall have a reinforced nylon body and shall be sized 3/4 inch through 2 inches with a threaded connection. Lightweight air release valves shall be NSF 61 approved. ARV shall have a rolling seal with a polypropylene float.

1413.0300 EXECUTION

1413.0301 General. Valves shall be installed as indicated on the plans or as specified in the special specifications, and TW Standard Details 330, 331 and 332.

1413.0302 Installation.

(A) General. Air release valves shall be installed above grade and in accordance with TW Standard Detail 330. The air release line requires a tracer wire in accordance with TW Standard Detail 116. Above-grade ARV shall be lightweight, with a reinforced nylon body, rolling seal, and polypropylene float, all NSF 61 approved.

(B) Exterior Metal Surfaces. After the air release valve assembly has been installed, the Contractor shall apply an Outside Paint System (OPS) No. 2 to the entire assembly in accordance with AWWA D102. The coating shall be holiday free and have a minimum total dry film thickness of 6 millimeters.

(C) Workmanship. All the Contractor's or subcontractor's personnel shall be skilled and knowledgeable regarding installation procedures for the air release valves and appurtenances being installed.

(D) Hydrostatic Test. Valves shall not be installed until after the pipeline has been tested, or ball valves shall be closed to isolate the air release valves during test.